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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,129	01/05/2007	Hironori Mizuta	062398	8186

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EXAMINER

DELCOTTO, GREGORY R

ART UNIT	PAPER NUMBER
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1761

NOTIFICATION DATE	DELIVERY MODE
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10/29/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

Office Action Summary	Application No. 10/577,129	Applicant(s) MIZUTA ET AL.	
	Examiner Gregory R. Del Cotto	Art Unit 1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-15 and 17-29 is/are pending in the application.
- 4a) Of the above claim(s) 21-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-15,17-20 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 3-15, and 17-29 are pending. Claims 2 and 16 have been canceled.

Applicant's response filed 8/12/10 has been entered.

Claims 21-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/24/10.

Objections/Rejections Withdrawn

The following objections/rejections as set forth in the Office action mailed 4/12/10 have been withdrawn:

The objection to claim 2 due to minor informalities has been withdrawn.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 1761

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-15, 17-20, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Kanno et al (US 2004/0106531).

Kanno et al teach a cleaning composition for removing resists containing a water-soluble organic solvent, phosphonic acid, water, a copper corrosion inhibitor, etc., such that the composition has a pH from 2 to 8. Suitable corrosion inhibitors include citric acid, etc. See paras. 71-75. Suitable solvents include diethylene glycol monomethyl ether, etc. See paras. 42-43. Suitable phosphonic acids include diethylenetriaminepenta(methylene phosphonic acid), 1-hydroxyl ethylidene-1,1-diphosphonic acid, etc. The phosphonic acid is present in amounts from 0.5% to 15% by weight. See paras. 62-63. Also, Kanno et al teach compositions containing, for example, 70% total solvent wherein the solvent contains 49% DMSO (dimethyl sulfoxide) and 21% DGME (diethylene glycol monomethyl ether). See Table 5, Example 32. Kanno et al disclose the claimed invention with sufficient specificity to constitute anticipation.

Accordingly, the teachings of Kanno et al anticipate the material limitations of the instant claims.

Claims 1, 3-15, 17-20, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable Ikemoto et al (US 2003/0181344).

Ikemoto et al teach a photoresist stripping composition containing at least one oxymethylamine compound. See Abstract. The cleaning composition may contain an alkaline compound, an organic solvent, an anti-corrosion agent, and a surfactant, either alone or in combination. See para. 34. Suitable solvents include ethylene glycol, ethylene glycol monomethyl ether, ethanol, etc. See para. 37. The anti-corrosion agent may include aromatic hydroxyl compounds, sugar alcohols, triazole compounds, and chelating compounds. Suitable chelating compounds include 1,2-propane diaminetetramethylene phosphonic acid, citric acid, etc. These compounds may be used alone or in combination of two or more. See paras. 39-43. Further, the anti-corrosion agent is generally present in amounts of 30% by weight or less. See paras. 47 and 48. Specifically, Ikemoto et al teach compositions containing 65% 1-amino-2-propanol, 1% butoxymethyldiethylamine, 14% diethylene glycol monomethyl ether, 18% water, and 2% 4-tert butylcatechol. Additionally, Ikemoto et al teach compositions containing 30% ethanolamine, 2% aminoethoxyethanol, 40% dipropylene glycol methyl ether, 26% water, and 2% citric acid. See paras. 63-67. Note that, the Examiner asserts that the broad teachings of Ikemoto et al would suggest compositions having the same pH as recited by the instant claims because Ikemoto et al teach compositions containing the same components in the same amounts as recited by the instant claims.

Art Unit: 1761

Ikemoto et al do not teach, with sufficient specificity, a composition having the specific pH containing an organic acid, a complexing agent, an organic solvent, and the other requisite components of the composition in the specific amounts as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a composition having the specific pH containing an organic acid, a complexing agent, an organic solvent, and the other requisite components of the composition in the specific amounts as recited by the instant claims, with a reasonable expectation of success and similar results with respect to other disclosed components, because the broad teachings of Ikemoto et al suggest a composition having the specific pH containing an organic acid, a complexing agent, an organic solvent, and the other requisite components of the composition in the specific amounts as recited by the instant claims.

Response to Arguments

With respect to the rejection of the instant claims under 35 USC 102(e) using Kanno et al, Applicant states that an essential feature of the cleaning composition of Kanno et al is that the water-soluble organic solvent is present in an amount from 50% to 98% by weight while the instant claims require that the content of an organic solvent is from 0.05 to 40% by weight. In response, note that, the Examiner asserts that instant claim 1 simply requires that the composition contains 0.05 to 40% of an organic solvent such as a glycol ether and is open any other additional components including additional organic solvents due the "comprising" claim language. Further, the Examiner asserts

Art Unit: 1761

that Kanno et al exemplifies compositions containing, for example, 21% by weight of DGME which would fall within the scope of the instant claims and 49% by weight of dimethyl sulfoxide (See Example 32 of Kanno et al) which would not be excluded from the composition as recited by the instant claims due to the claim language "comprising". Also, note that, claim 1 does not require that the composition, as a whole, contains 0.05 to 40% by weight of total organic solvent; claim 1 only requires that the composition contains 0.05 to 40% by weight of specific organic solvent and is open to other organic solvents. Thus, the Examiner asserts that the teachings of Kanno et al are sufficient to anticipate the claimed invention under 35 USC 102.

With respect to the rejection of the instant claims under 35 USC 103 using Ikemoto et al, Applicant states that Ikemoto does not teach a cleaning composition containing an acid, a complexing agent, and an organic solvent and that the pH in the composition of Ikemoto et al is alkaline while the instant claims require that the pH of the composition is from 0.5 to 6.5. Additionally, Applicant states that while Ikemoto et al is silent regarding the pH of the composition, Ikemoto et al exemplifies compositions containing large amounts of ethanolamine, for example, which is an alkaline compound and would result in the overall composition having an alkaline composition. In response, note that, Ikemoto et al teaches that the cleaning compositions may contain an alkaline compound, an organic solvent, an anti-corrosion agent, **and a surfactant, either alone or in combination** (See para. 34 of Ikemoto et al) which clearly suggests compositions containing a combination of various components as recited by the instant claims. Further, the Examiner asserts that the teachings of a reference are not limited

Art Unit: 1761

to the preferred embodiments. Ikemoto et al teaches that the compositions may contain as little as 0.001% by weight of the oxymethylamine compound and 0.001% by weight of the alkaline compound (See claim 13 of Ikemoto et al) which clearly indicates that the compositions may contain very small amounts of alkaline compounds resulting in compositions of widely varying pH values including the values recited by the instant claims. Further, Ikemoto et al teaches that the composition may contain relatively large amounts up to 30% of acid such as citric acid (See para. 48 of Ikemoto et al) which would allow for the formulation of compositions having the same pH values as recited by the instant claims. Thus, the Examiner asserts that the teachings of Ikemoto et al are sufficient to render the claimed invention obvious under 35 USC 103.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1761

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (571) 272-1312. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory R. Del Cotto/
Primary Examiner, Art Unit 1796

/G. R. D./
October 25, 2010